REMARKS

The present amendment is submitted in response to the Office Action dated February 26, 2008, which set a three-month period for response. Filed herewith is a Request for a Three-month Extension of Time, making this amendment due by August 26, 2008.

Claims 11-23 are pending in this application.

In the Office Action, claims 11-15, 17 and 19-23 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,317,962 to Adachi. Claim 16 was rejected under 35 U.S.C. 103(a) as being unpatentable over Adachi in view of U.S. Patent No. 4,102,040 to Rich. Claim 18 was rejected under 35 U.S.C. 103(a) as being unpatentable over Adachi in view of JP 2001231190 to Ozawa.

The Applicants respectfully disagree that the cited references render obvious the present invention, whether these references are viewed alone or in the proposed combinations.

The cited reference to Adachi discloses a method for manufacturing a stator of an electrical machine. The method includes the steps of a) making individual, universal lamella or strips 20 for the stator 51; b) stacking the individual lamella 20 in order to make the stator core (laminated assembly 50). This stator core 50 has a yoke with a yoke height. A side of the stator core 50 is provided with slots 51a, which extend through the core 51; c) making a "subassembly" by inserting a stator coil into the slots 51a of the stator core 50

made in step b); d) bending the "subassembly" into a circular shape in order to form a cylindrical cavity so that the slots 51a terminate in the cavity (column 2, lines 63 through 65); and e) connecting at least two ends (Fig. 1) of the stator core 50 by a welding seam (welding portion 51b) (column 2, lines 65-67 in order to hold the "subassembly" in a configuration with the cylindrical cavity.

Adachi, however, fails to disclose the last feature of claim 11 of the present application, which defines that a "welding seam depth (T_S) of the welding seam (20) is a function of the yoke height (H_{yoke}) and a tolerance value (ΔT_S) and is given by the following formula (I): $T_S = 0.5\ mm * (H_{yoke}/mm - 1) \pm \Delta T_S$".

Claim 19 includes the same features and differs only from claim 11 in that the electrical machine includes the stator made according to claim 11. Thus, the same arguments as set forth above with regard to claim 11 apply as well to claim 19.

The definition of a welding seam and its welding seam depth is the result of considering the effect of multiple parameters on the stator of an electrical machine. On the one hand, tearing of the welding seam at the attachment point after welding must be avoided and on the other hand, the electromagnetic properties of the stator iron at the attachment point should not be affected too disadvantageously. The welding seam must have a sufficient thickness, in order to absorb the existing tractive forces in the welding seam, but on the other hand, the welding seam may not be too deep in order to avoid a negative effect on the magnetic properties at the welding point by existing changes in the yoke during welding and joining.

The head applied by the welding connection or the welding process in the stator may not be so large that it would destroy the coil located in the stator iron. The heat applied by means of the welding process cannot destroy the coil wire (thermal breakdown of the insulation of the wire and melting of the wire) and on the other hand, the insulation of the coil cannot be damaged in order to prevent an electromagnetic short circuit in the coil, that is, between wires of the coil or between the coil and its wires with the stator iron itself.

The determination of the welding seam depth as defined in claims 11 and 19 requires the claimed complex and mathematical calculation.

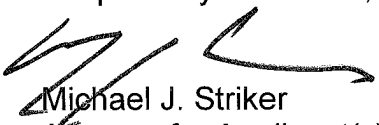
All of the features relating to capability and optimizing possibilities in many directions are so extensive and complicated that these considerations would not be considered as a matter of course with the general knowledge of the practitioner, but instead requires considerable expertise. The required expertise does not relate to determining mechanical loads, but to the knowledge of metallurgical properties and processes (changes in structure), knowledge of different material properties (knowledge about the stability of insulation materials), knowledge in the area of complex mechanical load processes and their calculation (load in the welding seam) as well as knowledge in the area of electromagnetic properties of materials for the stator iron and its effect during welding.

Based on the foregoing distinctions, therefore, the subject matter of the pending claims is not rendered obvious by the cited references. It is respectfully submitted that since the prior art does not suggest the desirability of the claimed

invention, such art cannot establish a prima facie case of obviousness as clearly set forth in MPEP section 2143.01. When establishing obviousness under Section 103, it is not pertinent whether the prior art device possess the functional characteristics of the claimed invention, if the reference does not describe or suggest its structure. ***In re Mills***, 16 USPQ 2d 1430, 1432-33 (Fed. Cir. 1990).

The application in its current state is therefore believed to be in condition for allowance. Action to this end is courteously solicited. Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,



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